TR510 Control Center for Windows

User's Manual

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Using the TR510 Control Center

The **TR510 Control Center** software is a simple and easy-to-use program that allows you to access the TR510 Time Recorders online and setup the function parameters (Settings) as well as download and save the Time and Attendance data collected by each Terminal.

System Requirements

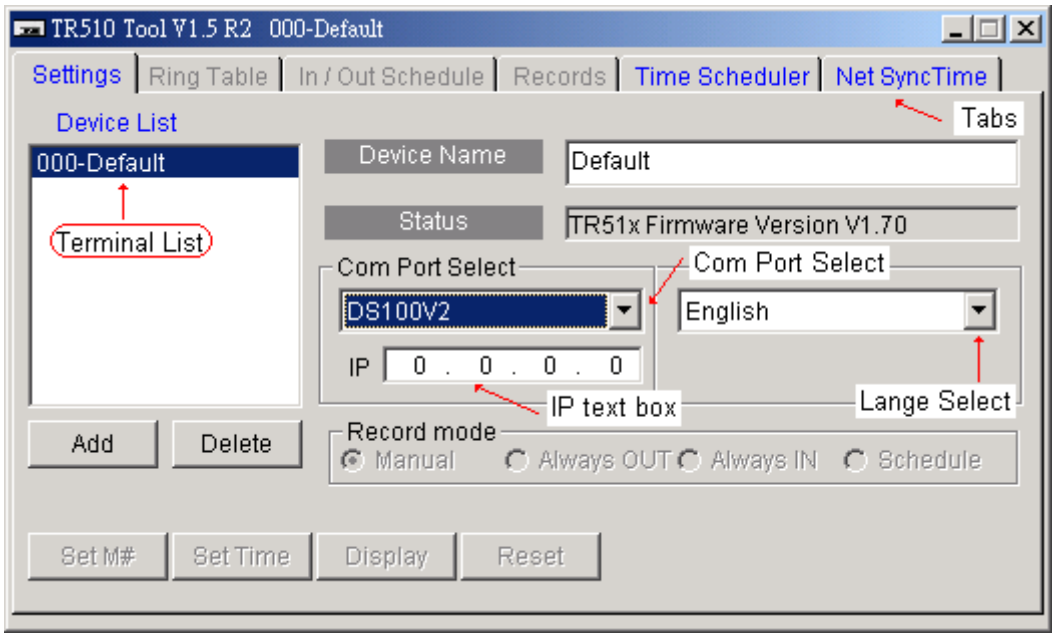
The **TR510 Control Center** software runs under Windows-95/98/2000/NT. At least 7MB free disk space is required on hard disk drive (HDD). Recommended RAM size is 32MB.

Installation

To install the **TR510 Control Center** just insert the software CD into CD-ROM drive and follows the instructions step by step, or individually run the *"TR510.exe"* file from the enclosed software CD. Simply click on the *"Install TR510 Control Center for Windows"* link on the CD's title HTML page (runs automatically once you insert the CD into the CD-ROM drive). After you click on this link, a **File Download** dialog will open. Choose **"Run this program from its current location"** and click **OK**. A **Security Warning** will appear at this point - just click **Yes** to continue the installation. The **WinZip self-extractor** dialog will appear next - click **Install** and follow the installation instructions on the screen.

Running the TR510 Control Center

By default, Control Center icon is created in the **Start/Programs/Giga-TMS** folder. After the program startup, the main screen will appear:



Main screen contains four tabs:

- **SETTINGS**- to set up basic function parameters
- **RING TABLE**- to edit the ring schedule
- **IN/OUT Schedule**- to arrange in/out schedule
- **RECORDS**- to upload and save the TR510E's Time and Attendance database contents
- **Time Scheduler**-to set up time for auto-uploading the records from all TR510Es that are connected to PC.

Selecting language

The **TR510 Control Center** can support multiple languages through its language resource files. The **language** drop-down box on the **SETTINGS** tab displays all available languages. Choose the language you want to use and all text strings will be changed accordingly.

If the desired language is not available, a new language resource file can be easily created (see Appendix for more details on how to do this).

Selecting the COMM port

Before attempting to communicate with the TR510Es, you'll need to select the COMM port Serial or Ethernet port. Check which COMM port your TR510E Terminal(s) is/are currently connected to and choose the appropriate port on the **SETTINGS** tab.

Record mode setting

You can use this function to set the TR510E's LED position to be always on **IN,** always on **OUT,** set by **Manual** or scheduled by **IN/Out schedule** table. The TR510E will keep the last of LED position even after the TR510E is powered off, but in IN/OUT scheduled mode the LED position will follow IN/OUT schedule.

On the Device List, select a device ID and double click it to establish connection with TR510E. This frame will display or allow you to change the setting if the TR510E's firmware supports this function. This software can check the TR510E understanding that the TR510E is supporting this function or not automatically when you log on TR510E to software.

Setting up the machine (Terminal) numbers

The TR510E supports Ethernet network interface (using RJ45 connector), each TR510E need unique IP address, and select "DSV100V2" in Com Port selection List. GIGA-TMS supplies a tool DS Manager to set IP address and serial communication protocol parameters (see detail in manual **quick start guide**).

Single-terminal configuration does not require machine number setup. For easy to manage terminals on the multi-terminal network, Multi-terminal arrangement requires a unique machine number to be set for each Terminal in order for the system to work is good idea.

Terminals on the multi-terminal network are addressed using their IP address not machine numbers. Each Terminal must have a unique IP address assigned to it.

Each Terminal on the network is represented by separate entry in the **Device List** (**SETTINGS** tab). After the software installation, the list contains only one entry- **000-default**. 000 is a so-called universal machine number- uses it *only* if there is ONE Terminal. If there are more than one Terminal, to create separate entries for each Terminal on the Ethernet network is good to manage Terminals. Click on **Add** button (several times if necessary) to add entries to the **Device List**. For example, if your network has 4 Terminals, then your list should have 5 entries (including the 000-Default entry), as shown on Fig. above.

Each entry consists of a machine number and a Terminal name. Machine numbers are created in ascending order. Numbers cannot be skipped (i.e. you cannot create Terminal #1, 2, & 4). Terminal names can be edited. To do so, select the entry in the **Device List** and enter the new name in the **Device name** text box.

After the necessary number of entries has been created, you must set the machine number of each Terminal. There are two ways of doing this:

- Use the Terminal's IN and OUT buttons to set the machine number (refer to the *TR510E User's Manual* for more details)
- Use the TR510 Control Center to set the machine number.

The first method is easier but only allows you to set the numbers in the 1-10 range. The second method is somewhat more complicated but it doesn't have the 10-terminal-only limitation, so you can use it to set up bigger networks.

To assign the machine number using the TR510 Control Center:

- Connect all TR510E Terminals on LAN you are planning to use to the PC one by one (i.e. one at a time) and repeat the following steps for *each* Terminal:
    - Select Com Port "DS100V2" from Com Port Select List and type IP address in IP text box
    - Double-click on the **000-default** item in the **Device List**. The Terminal will be selected and all buttons on the screen will be enabled
    - Click **the Set M#** button- the **Assign New ID** dialog will appear
    - Choose the Terminal number/name from the drop-down box and click **OK**. The Terminal's Machine number will be set to the selected value
- Put all Terminals back on a single network and make sure that you can communicate with every Terminal by assign a IP address and double-clicking on each entry in the **Device List** except the default one. If the software cannot communicate with the selected Terminal, an error message will display.

NOTE: The most common problem for multi-terminal configurations is the conflict between the terminal numbers. Always start by checking the Terminal numbers of each Terminal when attempting to resolve communication problems (that is…after making sure all Terminals are on)

Selecting the Terminal

Double-clicking on the Terminal name in the **Device List** enables communications with the designated Terminal. Communications with the Terminal is not established until you type its IP address in IP text box and select its name by double-clicking.

If you only have a single Terminal connected to the PC, you can double click on **000-default**. Never use **000-default** if you have more than one TR510E connected to the PC.

Setting up time and date

Each TR510E Terminal must be set to correct time and date. To do this:

- Double click on the desired Terminal in the **Device List**- all buttons on the **SETTINGS** tab will be enabled
- Click the **Set Time** - the **Set Time and Date** dialog will appear
- Set the time and date using one of two options:
    - Just type in new values and click **OK**, or
    - Click **Sync.** (Synchronize) to set the time and date from the computer's clock.

Setting up display mode

The TR510E can be used as a wall-mount (default) or desktop device. When used as a desktop device, it must be rotated to allow for convenient display viewing angle. The text on the LED display must also be rotated 180°. Display mode setting allows you to do this:

- Click the **Display** button- **Display mode** dialog will appear.
- Select the desired display mode (desk or wall) and click **OK**.

Setting up the ring table and ring duration

The ring table feature of the TR510E allows you to define a daily ring (bells) schedule. You can enter up to 32 times a day at which the ring relay will be activated. **Note**: the TR510E does not have any internal ringer, only a ring control relay. You must attach an external ringer (bell) in order to use the ring function (see the *TR510 User's Manual* for further details).

To set up the ring table:

- Select the desired Terminal from the **Device List**
- Click on the **RING TABLE** tab to open it
- Click **Upload** button to upload the existing ring table data (if any) - the data will be displayed in the ring table (sorted in ascending order)
- Add desired entries by entering new time values anywhere on the unused table lines (or modify existing entries by typing over)
- When finished, click the **Download** button - the updated ring table contents will be saved back into the TR510E

Ring duration is set simultaneously for all ring table entries to define how long (in seconds) the ring will sound each time. Use the **Duration** button to setup this value. Maximum allowable duration is 255 seconds.

Several other buttons on the **RING TABLE** tab provide additional functions:

- **Clear** button can be used to erase all data in the ring table. This will only erase the data shown on the screen but not from the TR510E's memory. To delete all entries from the Terminal's memory:
  - Click the **Clear** button- the contents of the Ring Table will be erased
  - Click the **Download** button to update the data in the TR510E's memory
- **Save** and **Load** buttons allow you to save the contents of the ring table to the disk file on your PC

Retrieving and saving the Time and Attendance data

The third tab **RECORDS** - contains all the necessary controls to upload the database data from the TR510E into the PC and to perform database maintenance. To upload the data:

- Double-click on the desired Terminal in the **Device List**
- Click on the **RECORDS** tab
- Click **Upload** to upload all Time and Attendance records from the TR510E into the PC
- During the uploading process, the progress bar below the data table displays the task progress and the total number of records to be uploaded
- Uploaded data will be displayed in the data table in the following format:
  - The **NO#** field- record numbers
  - **Card No** field.- ID-code of the ID-card
  - **Event** field: 0- OUT, 1- IN
  - **Date** and **Time** fields- date and time of record creation
- Click **Save** to save the uploaded data into the disk file. Default filename offered is a string in the following format: "*yyyymmdd*.txt" (year, month, date).
- Once the data has been safely saved into the file, the data in the TR510E's memory is erased automatically
- The Software will attempt to open the saved data in the **Notepad** (if the data is too big for the **Notepad**, then in the **WordPad**). Both are standard Windows text editors that normally come with every Windows distribution.

Note: there is also an **Open** button that allows you to load the disk file contents into the data table.

Erasing or Recovering the database contents

The **Database** button allows you to delete the database contents (initialize the database) or perform a *database recovery*. Both options also *repair* the database. Use these functions to restore the normal operation of the corrupted database (**`Err5`** on the TR510E's display). Note that the **TR510 Control Center** has no way of knowing whether the database is corrupted or just contains no records - in either situation, the database will appear to be empty. You can verify the database status by attempting to add the record (by reading the User card) on the TR510E. If the record is accepted, then the database is OK. If **Err5** is displayed, then the database is damaged and needs repair.

Repairing the database by initializing it makes it immediately available for use. However, existing records in database will not be retrieved and saved. Database recovery gives you a chance to retrieve these existing records.

After the recovery, the database appears to be 100% full with records. Some of these records may be invalid. Expect to retrieve some percentage of invalid data. The records you are interested in could be overwritten by newer ones at the time of attempted recovery.

Hint: the TR510E also features a power-on auto-recovery mechanism. Follow this procedure when you get the **`Err5`** message:

- First, try to switch the TR510E off and on again - the Terminal will attempt to auto-repair the **`Err5`** condition automatically

- If this fails (i.e. you still cannot add new records to the database and cannot load the database contents) then perform the database Recovery

Both Initialization and Recovery functions are accessed by clicking on the **Database** button. You'll be requested to enter the password - use either "0000" or "GIGA" (keep the passwords confidential so no unauthorized person can delete the data).

The **Manage Database** dialog will appear after the password entry. Choose your option and click **OK**. If you've chosen recovery, then the **Records** tab will display a large number (>8000) of new records - click **Upload** to load the data.

Reseting the TR510E

The TR510E may be reset to the default factory settings by clicking on the **Reset** button (**SETTINGS** tab). Note: reset will actually take place on the next TR510E power-up.

Reset operation will:

- Initialize the Terminal's machine number to 0
- Set display mode to "Wall"
- Clear the ring table
- Initialize the ring duration to 10 seconds
- Check the time and date and initialize it to 01/01/2000 00:00:00 *only* if time/date was invalid

Reset operation *will not* affect the records stored in database.

Setting Time Scheduler

In this tab, software provides 32 settings for **Time scheduler** to download records from all the powered-on TR510Es that are connected to PC and displayed on device list IMPORTANT: Connections must be established with all the TR510E from **Settings tab** and a unique number must be assigned to each terminal**.(not include 000)** First, select the device ID and double click to update device information into software. Time scheduler will use "YYYYMM.TXT" (for standard version) or "MM-YYYY.TXT"(for OEM version) as the default file names. If you wish to use other file name, you can use "**Change save path"** button to change. If you don't rename file name by "Change save path" then software will use the file name that you used last time to save all records. Therefore if you want to save all records into another file during time scheduler running then don't forget to change file name by "change save path" button.

An event file will also be created to record the events performed by Time Scheduler. Such events will include: the start time of the Time Schedulers and the TR510E terminals that have been polled. Software will save all events to a file named "eventyyyymmdd.txt" in the events folder.

Press **Start Button** to start Time scheduler when you have performed the above steps for the TR510E's settings. At the scheduled time, Time Scheduler will detect device according to the device list. If TR510E's settings are correct and are connected to the PC with power on then the software uploads and save the records from TR510E's automatically.

Setting IN/OUT Schedule

In this tab, software provides 32 settings for **IN/OUT schedule** to set the schedule IN/OUT schedule table. You can select Hour, Minute and IN/OUT event in IN/OUT schedule setting entries, and save the IN/OUT schedule table in a file. IN/OUT schedule will use "TR510IO.TXT" as the default file names. If you wish to use other file name, you can type file name directly. If you don't rename file name then software will use the file name that you used last time to save all IN/OUT schedule tables. Therefore if you want to save all tables into another file during IN/OUT schedule running then don't forget to change file name.

Press **Download Button** to download IN/OUT schedule to TR510E when you have finish IN/OUT schedule setting. At the scheduled time, TR510E will auto switch IN or OUT event by IN/OUT schedule table.

Appendix. Creating new language resource file

The **TR510 Control Center** allows for easy localization through *language resource files*.

When the **TR510 Control Center** is installed, it creates a sub-directory named "Language" in its working directory. Unless you have chosen a different installation directory, the **TR510 Control Center** is installed in **C:\Program files\Giga-TMS\TR510 Control Center**. "Language" sub-directory is found inside.

After the installations, this sub-directory contains resource files for already supported languages. To create a new resource file:

- Create a copy of the file named *"English.txt"* in the same sub-directory, but under a different name. Never edit *"English.txt"* itself- make a copy under a different name and edit this copy instead!
- The filenames of the files is what is displayed in the **Language** drop-down box on the **SETTINGS** tab of the **TR510 Control Center**. Therefore, the name of the file you are creating should reflect the actual language supported (i.e. *"Korean.txt"*, *"Spanish.txt"*, etc…)
- Open the file using the **Notepad** or any other suitable ASCII text editor
- The file consists of lines in the following format: ID=*text*. ID is the numerical ID that uniquely identifies the string resource. Make sure that you don't change it. Replace the English text after the equal sign with its equivalent in the language you are creating the support for. Do this for every line in the language resource file
- When done, save the file and run the **TR510 Control Center** again. Choose the language you've just created- it should be visible in the **Language** drop-down box
- Check the results of your translation and make adjustments if necessary.

Follow are the original contents of the *"English.txt"* file:

```
1=TR510
20=Arial
21=9
40=Record mode
50=Manual
51=Always OUT
52=Always IN
101=Device List
102=Click to poll
103=Device Name
104=Com Port Select
107=Status
112=Add
113=Add Address
114=Delete
115=Delete Address
116=Set M#
117=Assign new ID
118=The password is incorrect
120=Set Time
121=Set TR510 Time
124=Reset
125=Reset will take place after you switch the Terminal off and back on again
126=Event
127=Set event select mode
131=Clear
132=Clear ring table
137=Bell duration (0-255 sec.)
140=You haven't finished uploading the records, are you sure that you want to save the data and initialize the database anyway?
201=Please enter date(mm-dd-yyyy)
202=Please enter time(hh:mm:ss)
206=Save
207=Save Ring Table to file
```

212=Open
213=Load Ring Table from file
301=NO
302=Hour
303=Minute
304=Duration
305=Set Bell duration
306=Save
307=Save record to file
319=Upload
320=Upload ring table from TR510
321=Download
322=Download ring table to TR510
401=NO#
402=Card No
403=Event
404=Date
405=Time
406=Database
407=Initialize or recover TR510 database
408=Upload
409=Upload record from TR510
412=Sort Asc.
413=Arrange Data in Ascending Order
414=Sort Des.
415=Arrange Data in Descending Order
417=Open
418=Load record from file
500=Not Unit Found
600=Password
601=Please Enter Password:
602=Ok
603=Cancel
700=Assign new ID
701=Select ID address download to TR510
800=Time and Date
801=Sync.
802=Synchronize TR510 time/date with PC
803=Set duration
804=Initialize the database
806=Prepare for Data Recovery
809=Enter desired ring time
811=Display
812=Set display mode
814=Display mode
815=Manage database
816=Choose the display mode of TR510
817=Initialize will clean the machine's record database. Data recovery will prepare the machine's record database in such a way that you might manually recover some useful information, which is otherwise lost. Because of the side effects of the recovery action, an initialization is necessary after a recovery is taken place. Please make sure that these actions are necessary before you take any action.
818=Are you sure that you want to reset the device?
820=Wall Mode
821=Desk Mode
822=ID Digital Set
823=Relay Control Mode
824=For Alarm
825=For Door Lock
900=T.S
901=Start
902=Stop
903=Change path
904=No #
905=Hour
906=Min
907=Time scheduler is running ! Pls. stop it and login device again.
2000=Settings
2001=Ring Table

2002=Records
2003=Time Scheduler
8008=Communications with TR510 failed
8009=Please set the device in LOGIN mode then try again
8010=Please check your Device ID selection
8011=Please check your COMM port setting and make sure that your device is at the right port.
8012=Please check the data parameter then try again.
8013=Hour must be between 1 and 23
8014=Minute must be between 1 and 59
8015=The value you entered is not numeric. Please try again.
8016=Time or date is incorrect
8017=Duration must be between 0 and 255
8018=No data is entered. Please choose your option.
8019=The device failed to reply to the computer's command. Either the device is currently offline, or you have selected the wrong COMM port.
8020=The device failed to reply to the computer's command. The device is either currently offline or having connection problems.
8021=Do you know that you have
8022= records in the database? Are you sure that you want to initialize the database?
8023= records in the database? Are you sure that you want to recover the database?
8024=An error occurred while disabling ring table entries. Please check the device connection again. Or try another device.
8025=An error occurred while setting the ring table entries to the device. Please check the device connection again. Or try another device.
8026=An error occurred while enabling the ring table entries. Please check the device connection again. Or try another device.
8027=An error occurred while uploading the time entries from the device. Please check the device connection again. Or try another device.
8028=An error occurred while checking the ring table entry activation. Please check the device connection again. Or try another device.
8029=An error occurred while getting time from the device. Please check the device connection again. Or try another device.
8030=An error occurred while resetting the device. Please check the device connection again. Or try another device.
8031=An error occurred while polling device
8032=An error occurred while setting the device display to Desk Mode. Please check the device connection again. Or try another device.
8033=An error occurred while setting the device display to Wall Mode. Please check the device connection again. Or try another device.
8034=An error occurred while getting the current device time mode. Please check the device connection again. Or try another device.
8035=An error occurred while getting the current device duration. Please check the device connection again. Or try another device.
8036=An error occurred while initializing the device's database. Please check the device connection again. Or try another device.
8037=An error occurred while preparing the device for data recovery. Please check the device connection again. Or try another device.
8038=. Please check the device connection again. Or try another device.
8039=Second must be between 1 and 59
8040=Terminal database is empty (or malfunctioning)
8041=Time that you entered is invalid.
8042=Date that you entered is invalid.
8043=The database is malfunctioning. The data could not be loaded.
9100=Success!!
9101=Error!!
9102=Not Unit Found